In the Abstract

Please replace the Abstract of the Disclosure with the following:

ABSTRACT OF THE DISCLOSURE

In a ~~high-fidelity digital~~ modulator circuit, a mapping function is performed within a main feedback loop of the modulator, rather than after the feedback loop. In a high-fidelity digital modulator embodiment, pulse ~~Pulse~~ width modulation mapping ~~in such circuits~~ generates a fairly large harmonic content when cascaded with the digital modulator circuit and tends to dramatically change the shape of the noise floor in the desired band, e.g. 0-40 kHz. Placing the mapping function within the ~~high-gain digital~~ modulator feedback loop tends to compensate for ~~the~~ non-linear features of the mapping function, thus reducing harmonic generation and simplifying the task of suppressing harmonic generation to an acceptable level. In addition to reducing harmonic generation, this arrangement simplifies feedback processing and the accumulation of feedback information within various integrators in the modulator circuit.